SUBSECTION 8.8

Socioeconomics

8.8 Socioeconomics

8.8.1 Introduction

This subsection discusses the environmental setting, consequences, regional and local impacts, and mitigation measures associated with the socioeconomic aspects of the San Francisco Electric Reliability Project (SFERP). Subsection 8.8.2 presents the laws, ordinances, regulations, and standards (LORS) applicable to socioeconomics. Subsection 8.8.3 describes the environment that may be affected by SFERP construction and operation. Subsection 8.8.4 identifies environmental impacts from development of the power plant, and Subsection 8.8.5 discusses cumulative impacts. Environmental justice issues are addressed in Section 4.0, Environmental Justice, and an Environmental Justice analysis is provided in Appendix 8.8A. Mitigation measures are discussed in Subsection 8.8.7. Subsection 8.8.8 presents the agencies involved and provides agency contacts. Subsection 8.8.9 presents the required permits and permitting schedule. Subsection 8.8.10 provides references used to prepare this subsection.

The SFERP project is located between Cesar Chavez and 25th streets, southeast of the corner of Michigan and 25th streets in the Potrero District of the City and County of San Francisco (CCSF). For this project, the region of influence is CCSF.

Land use in the vicinity of the proposed SFERP project site is predominantly industrial to the north, south, and west, with some commercial and residential uses. The San Francisco Bay is located east of the proposed site.

8.8.2 Laws, Ordinances, Regulations, and Standards

A summary of the LORS, including the project's conformance to them, is presented in Table 8.8-1.

8.8.2.1 Federal

Federal LORS are addressed in Section 4.0, Environmental Justice.

8.8.2.2 State

Government Code Sections 65996 and 65997 provide the exclusive methods of considering and mitigating impacts on school facilities that might occur as a result of the development of real property.

Education Code Section 17620, listed in Government Code Section 65997 as an approved mitigation method, allows school districts to levy a fee or other requirement against any construction within the boundaries of the school district for the purpose of funding construction of school facilities.

TABLE 8.8-1
Laws, Ordinances, Regulations, and Standards Applicable to SFERP Socioeconomics*

LORS	Purpose	Applicability	Conformance
State			
Government Code Sections 65996-65997	Establishes that the levy of a fee for construction of an industrial facility be considered mitigating impacts on school facilities.	SFPUC is exempt because it is a public agency.	Subsections 8.8.4.3.6 and 8.8.4.4.6
Education Code Section 17620	Allows a school district to levy a fee against any construction within the boundaries of the district for the purpose of funding construction of school facilities.	SFPUC is exempt because it is a public agency.	Subsections 8.8.4.3.6 and 8.8.4.4.6
Local			
San Francisco General Plan, Commerce and Industry Element	The objectives of this element are to seek continued economic vitality, social equity and environmental quality	Encourages industry to minimize adverse impacts, expand employment, maintain a favorable social climate	Subsections 8.8.2.3, 8.8.3.3, 8.8.3.4, 8.8.4.3, 8.8.4.4

* See also Section 4.0 for a description of federal and other local LORS.

8.8.2.3 Local

8.8.2.3.1 San Francisco General Plan: Commerce and Industry Element. The Commerce and Industry Element of the General Plan describes objectives and policies to enhance economic vitality, promote social equity, and maintain or enhance environmental quality. Three of the four objectives are relevant to Socioeconomics. Objective 1 is to manage economic growth so as to enhance the city's living and working environment. Objective 2 is to maintain and enhance the City's economic base and fiscal structure. Objective 3 is to provide expanded employment opportunities.

The project complies with Objective 1, Policies 1.1 and 1.2, since the development of this power plant will provide net benefits (e.g., reliable power, support closure of in-City generation) and minimize undesirable consequences. Compliance with Objectives 2 and 3 are addressed in Subsections 8.3 and 8.4

8.8.2.3.2 Ordinance No. 124-01, Resolution 827-02 and Resolution 458-03. These LORS are discussed in Section 4, Environmental Justice.

8.8.3 Affected Environment

8.8.3.1 Population

San Francisco is bordered to the north by Marin County, to the south by San Mateo County, and to the east by the San Francisco Bay (Bay). In addition to San Mateo and Marin counties, San Francisco is in close proximity to the following six counties: Alameda, Contra Costa, Napa, Santa Clara, Solano, and Sonoma. The preceding nine counties are economically linked and are thus generally referred to as the nine-county Bay Area.

As shown in Table 8.8-2, with a January 1, 2004 estimated population of 792,700, and a projected population of 796,200 by the year 2030 (DOF, 2005a). As shown in Table 8.8-3, the average annual compounded growth rate for the period of 2000-2010 is estimated at 0.5 percent, compared to a growth rate for the State of 1.3 percent. This means that population growth in San Francisco will be almost stagnant during that 10-year period.

As shown in Table 8.8-3, the annual average population growth rate has been decreasing since 1990. According to the projections, sometime after the second decade of this century (between 2020 and 2030), there will be a greater population outflow than inflow. In other words, more residents will move out of San Francisco than move in. This out-migration is expected to continue until at least 2050. The California Department of Finance projects that in 2050, San Francisco will have a population of 706,190—a population level close to what it had in 1984 (DOF, 2003a).

TABLE 8.8-2
Historical and Projected Populations*

Area	1990	1995	2000	2010(p)	2020(p)	2030(p)
San Francisco	723,959	751,899	776,733	816,200	820,500	796,200
California	29,758,213	31,910,061	34,480,300	39,246,767	43,851,741	48,110,671

Source: DOF, 2005a.
* Projected populations rounded to nearest 100.
(p) = projected

TABLE 8.8-3
Historical and Projected Annual Average Compounded Population Growth Rates

Area	1990-1995	1995-2000	2000-2010	2010-2020	2020-2030
San Francisco	0.8%	0.7%	0.5%	0.05%	-0.3%
California	1.4%	1.6%	1.3%	1.1%	0.9%

8.8.3.2 Housing

As shown in Table 8.8-4, housing stock for San Francisco as of January 1, 2004, was 354,490 units. Single-family homes accounted for 111,635 units, multiple-family dwellings accounted for 242,295 units, and mobile homes accounted for 560 units (DOF, 2005b). New housing authorizations for San Francisco in 2003 totaled 1,582 units; about 95 percent were multi-family and 5 percent were single-family units. These authorizations were valued at $546.8 million (DOF, 2005c). Fourth quarter 2004 median home price in San Francisco Bay Area was $656,700 (Bankrate.com, 2005). Housing availability, as measured by vacancy rate, has declined between 1990 (about 7 percent) and 2004 (about 4.8 percent). Housing demand has typically exceeded supply in San Francisco and continues to do so despite the economic downturn heralded by the "dotcom" bubble burst of 2000 and historically low interest rates (SFCED, 2003).

TABLE 8.8-4
Housing Estimates by County and State, January 1, 2004

Area	Total Units	Single-Family	Multi-Family	Mobile Homes	Percent Vacant
San Francisco	354,490	111,635	242,295	560	4.8
California	12,759,585	8,216,731	3,965,206	577,648	5.8

Source: DOF, 2005b.

8.8.3.3 Economy and Employment

San Francisco is in the San Francisco Primary Metropolitan Statistical Area (PMSA), which is comprised of the counties of San Francisco, San Mateo and Marin. Between 1999 and 2003, employment in the San Francisco PMSA decreased by 87,300 jobs or about 8 percent. California experienced a net increase of 3 percent during that same period (CEDD, 2005a). As shown in Table 8.8-5, the Construction and Government sectors were the only sectors that experienced an increase in employment. Although employment in Construction increased between 1999 and 2003, the contribution of this sector to the San Francisco PMSA economy remained relatively small (5 percent).

TABLE 8.8-5
Employment Distribution in San Francisco PMSA, 1999 to 2003

	1999		2003		1999-2003	
Industry	Number of Employees	Employment Share (%)	Number of Employees	Employment Share (%)	Percentage Change (%)	Average Annual Compound Growth Rate (%)
Agriculture	3,600	0	3,600	0	0	0.0
Natural Resources, Mining	300	0	200	0	-33	-9.6
Construction	42,900	4	43,600	5	2	0.4
Manufacturing	63,100	6	45,500	5	-28	-7.8
Wholesale Trade	33,000	3	27,800	3	-16	-4.2
Retail Trade	97,600	9	95,100	10	-3	-0.6
Transportation, Warehousing and Utilities	57,100	5	46,200	5	-19	-5.2
Information	48,500	5	47,000	5	-3	-0.8
Financial Activities	97,000	9	90,700	9	-6	-1.7
Services	475,100	46	425,700	45	-10	-2.7
Government	125,500	12	131,000	14	4	1.1
Total Employment	1,043,700	100	956,300	100	-8	-2.2

Source: CEDD, 2005a.

Table 8.8-6 provides details about the characteristics of the San Francisco PMSA labor force. It shows 2003 employment data for the San Francisco PMSA and the nine-county Bay Area compared to California. Both the San Francisco PMSA and the nine-county Bay Area have unemployment rates that are lower than the State average. The California Employment Development Department (CEDD) does not forecast future unemployment rates.

TABLE 8.8-6
Employment Data, 2003

Area	Labor Force	Employment	Unemployment	Unemployment Rate (%)
San Francisco PMSA	903,400	852,100	51,300	5.7
Nine-county Bay Area	3,607,300	3,374,300	233,000	6.5
California	17,460,000	16,282,700	1,177,300	6.7

Source: CEDD, 2005a.

8.8.3.4 Fiscal Resources

The only relevant local agency with taxing power is CCSF. San Francisco's expenditures and revenues for fiscal years (FY) 2001 and 2002 are presented in Table 8.8-7. Its revenues have been fluctuating for the past few years. From FY 2001 to FY 2002, San Francisco's revenues grew 5 percent. In FY 2003, the revenues were expected to decline by about 4 percent. The decline in revenue is attributable to the overall sluggish economy and the state deficit (which is responsible for the 5.3 percent decrease in intergovernmental transfers between FY 2002 and 2003).

TABLE 8.8-7
City and County of San Francisco Revenues and Expenditures ($ million)

	FY 2001	FY 2002	Proposed FY 2003
Expenditures			
Salaries and Wages	$1,818	$1,954	$1,972
Fringe Benefits	$440	$464	$415
Overhead	$38	$43	$56
Professional & Contractual Services	$1,185	$1,172	$1,162
Aid Assistance	$297	$362	$371
Materials and Supplies	$183	$172	$186
Equipment	$46	$49	$50
Debt Service	$463	$584	$527
Services to Other Departments	$396	$408	$449
Expenditure Recovery	($481)	($533)	($602)
Budgetary Reserves	$91	$58	$42
Facilities Maintenance	$13	$11	$12
Capital Projects	$285	$257	$153

TABLE 8.8-7
City and County of San Francisco Revenues and Expenditures ($ million)

	FY 2001	FY 2002	Proposed FY 2003
Total Expenditures	$4,773	$5,001	$4,790
Revenues			
Taxes	$1,367	$1,453	$1,439
Taxes – Property Taxes	$690	$702	$715
Taxes – Business	$675	$748	$721
Taxes – Other Local	$2	$3	$3
Licenses, Fines and Penalties	$108	$102	$150
Use of Money or Property	$327	$334	$326
Intergovernmental	$1,013	$1,064	$1,008
Charges for Services	$1,413	$1,543	$1,585
Other Revenues	$174	$173	$84
Fund Balance	$372	$333	$198
Total Revenue	**$4,773**	**$5,001**	**$4,790**

Source: City and County of San Francisco, 2003.
Numbers may not add up due to independent rounding.

Table 8.8-8 summarizes CCSF's general fund revenues and expenditures for the last 3 fiscal years. These estimates are different from those shown in Table 8.8-7, which were for all funds. Total revenues have been rising over the last 3 fiscal years with most of those increases being in taxes, specifically property taxes and transfers in. Property taxes increased by approximately 3 percent between FY 2002-03 and FY 2003-04 and by about 22 percent between FY 2003-04 and the current fiscal year (FY 2004-05). Transfers in have increased from about 2 percent (FY 2002-03 to FY 2003-04) to about 3 percent (FY 2003-04 and FY 2004-05). The decline in revenue is attributable to the overall sluggish economy and the state deficit (which is responsible for the 7 percent decrease in intergovernmental transfers between FY 2002-03 and FY 2003-04 and the almost 13 percent between FY 2003-04 and FY 2004-05).

Expenditures on all categories have been fluctuating over the last 3 fiscal years. Non-personnel expenditures increased by approximately 12 percent between FY 2002-03 and FY 2003-04 and declined by about 38 percent between FY 2003-04 and the current fiscal year (FY 2004-05). Personnel expenditures, on the other hand, decreased by about 12 percent between FY 2002-03 and FY 2003-04 and increased by about 14 percent between FY 2003-04 and the current fiscal year (FY 2004-05). All other expenditure categories declined over the 3 fiscal year periods.

TABLE 8.8-8
City and County of San Francisco General Fund Revenues and Expenditures ($ Millions)

	FY 2002-2003	FY 2003-2004	FY 2004-2005
Expenditures			
Personnel	$1,050	$929	$1,058
Non-personnel	$640	$719	$446
Revenue Transfers Out	$279	$0	$0
Services to Other Departments	$136	$132	$96
Budgetary Reserves	$53	$31	$0
Equipment Purchases	$13	$9	$21
Capital Improvements & Facilities Maintenance	$15	$7	$0
Debt	$7	$0	$2
Recoveries	$0	$185	$0
General Fund Contribution Transfer	$0	$232	$289
Aid/City Grants	$0	$0	$359
Reserves	$0	$0	$65
Total Expenditures	**$2,193**	**$2,245**	**$2,336**
Revenues			
Taxes	$1,183	$1,188	$1,322
Taxes – Property Taxes	$513	$528	$645
Taxes – Business	$282	$289	$295
Taxes – Other Local	$388	$371	$381
Franchise Tax	$11	$0	$0
Licenses & Permits	$6	$17	$16
Fines, Forfeitures & Penalties	$4	$32	$12
Interest Income	$17	$13	$6
Rents & Concessions	$18	$20	$22
Intergovernmental	$685	$657	$610
Service Charges	$91	$107	$102
Recoveries	$10	$0	$18
Other Revenues	$38	$19	$28
Transfers In	$131	$133	$136
Fund Balance	$0	$0	$0
Other Financing Sources	$0	$2	$1
ISF Charges for Services	$0	$0	$0

TABLE 8.8-8
City and County of San Francisco General Fund Revenues and Expenditures ($ Millions)

	FY 2002-2003	FY 2003-2004	FY 2004-2005
Non-ISF Charges for Services	$0	$0	$0
Previous Year Fund Balance & Reserves	$0	$58	$63
Recoveries	$0	$0	$0
Total Revenue	**$2,193**	**$2,245**	**$2,336**

Source: City and County of San Francisco, 2005; Lewis, 2005.
Numbers may not add up due to independent rounding.

8.8.3.5 Education

The SFERP site is within the boundaries of the San Francisco Unified School District, which has a total of 114 elementary, middle, and high schools. The closest schools to the project site include Enola Maxwell Middle School (655 DeHaro Street), the Starr King Elementary School (1215 Carolina Street), Daniel Webster Elementary School (465 Missouri Street), Creative Arts Charter (K-8) School (1802 19th Street), and International Studies Academy High School (693 Vermont Street). Current, as well as projected, enrollment figures for the combined San Francisco Unified School District (which includes the above five schools) are presented in Table 8.8-9. As shown in the table, the current enrollment levels for the School District have increased by 1,431 students (or 2 percent) over the prior year while the combined enrollment in the five schools have declined (about 8 percent, or 110 students) from what they were during the 2003-04 school year.

TABLE 8.8-9
Current and Projected Enrollment by Grade

	San Francisco Unified School District			International Studies Academy HS, Creative Arts Charter K-8, Enola Maxwell MS[a], Starr King ES, & Daniel Webster ES combined		
Grade Level	Enrollment in 2003-04	Current Enrollment (2004-05)	Projected Enrollment[b] (2005-06)	Enrollment in 2003-04	Current Enrollment (2004-05)	Projected Enrollment[b] (2005-06)
Kindergarten	4,044	4,059		91	102	99
First	4,285	4,060		84	87	99
Second	4,234	4,233		103	95	86
Third	4,272	4,219		116	92	96
Fourth	4,428	4,316		99	101	92
Fifth	4,364	4,462		109	118	100
Sixth	4,412	4,225		75	64	65
Seventh	4,272	4,369		95	80	64
Eighth	4,361	4,251		68	98	78

TABLE 8.8-9
Current and Projected Enrollment by Grade

	San Francisco Unified School District			International Studies Academy HS, Creative Arts Charter K-8, Enola Maxwell MS[a], Starr King ES, & Daniel Webster ES combined		
Grade Level	Enrollment in 2003-04	Current Enrollment (2004-05)	Projected Enrollment[b] (2005-06)	Enrollment in 2003-04	Current Enrollment (2004-05)	Projected Enrollment[b] (2005-06)
Ungraded Elementary & Pre-Kindergarten		1,371			0	0
Ninth	5,178	5,486			135	136
Tenth	5,256	5,198			129	136
Eleventh	4,606	4,704			109	106
Twelfth	4,093	4,252			102	91
Other (Ungraded Secondary)		31			0	0
Total	**57,805**	**59,236**		**840**	**1,312**	**1,248**

Source: ED-Data, 2005; Fillingim-Selk, 2005.
ES = Elementary School
MS = Middle School
HS = High School
[a] Enola Maxwell MS was formerly known as Potrero Hill MS.
[b] Projected enrollment numbers are currently not available.

8.8.3.6 Public Services and Facilities

8.8.3.6.1 Law Enforcement. The proposed SFERP project site is under the jurisdiction of the San Francisco Police Department (SFPD). The SFPD station closest to the proposed project site is the Bayview Station located at 201 Williams Avenue, San Francisco. The Bayview station has approximately 150 sworn officers: one captain, 4 lieutenants, 15 sergeants and approximately 110 patrol officers. There are 5 patrol cars that patrol the 5 sectors served by the Bayview Station. The station provides night and daytime patrols with 1 or 2 officers per patrol car (Bruce, 2005).

All calls to the station are routed through the SFPD Emergency Communication Dispatch Center. The SFPD uses a prioritization system whereby calls are categorized as either A, B or C. The response time to an emergency call depends on the priority of the call. Calls categorized as 'A' (e.g., crimes in progress such as burglary, assault, shooting, stabbing, etc.) are typically responded to within 2 minutes. Response times to 'B' calls are longer than 2 minutes; whereas, 'C' calls are responded when convenient. 'B'-type calls are those involving crimes that have already happened; e.g., a burglary has already occurred and an officer is required to take a report. 'C'-type calls are those typically dealing with minor infractions (Puccinelli, 2004).

The California Highway Patrol (CHP) is the primary law enforcement agency for state highways and roads. Services include law enforcement, traffic control, accident investigation, and the management of hazardous materials spill incidents.

8.8.3.6.2 Fire Protection. The SFERP site is within the San Francisco Fire Department (SFFD) jurisdiction. SFFD Station No. 25 located at 3305 Third Street is the closest station to the SFERP site. The second and third closest stations to the SFERP site are No. 37 located at 798 Wisconsin and No. 9 located at 2245 Girard.

The SFFD staffs each of these stations with one officer and three firefighters at all times, and equips each station with one engine. Thus, Station Nos. 25 and 37 each have one engine staffed by an officer and three firefighters while Station No. 9 is comprised of an Engine Company (one engine and three firefighters), a Truck Company (one truck, one officer and 4 firefighters) and an Ambulance. The average response time to a call is approximately 3 to 4 minutes for all stations in the department (Juarez, 2004; Reyes, 2005; Tingin, 2005; Wong, 2005).

In the event of a fire at the site, SFFD would determine whether additional units were necessary, and call in other stations, as needed.

8.8.3.6.3 Emergency Response. SFFD has a Hazardous Materials (Haz Mat) Response Team made up of members of Engine Company 36 (Station No. 36 located at 109 Oak Street) and is backed up by the members of Rescue Squads 1 and 2. The chief officers of Battalion 2 are responsible for coordinating all emergency operations. Further support is given to the unit by inspectors from the hazardous materials permit section of the Bureau of Fire Prevention, industrial hygienists, environmental health inspectors from the Department of Public Health, and the Coast Guard. The normal "emergency response" for the hazardous materials team is Battalion 2, Haz Mat 1, and a staff member from the Health Department. Sixty-one members of the San Francisco Fire Department are certified Hazardous Materials Specialists. Twenty-five of these members work at Station 36 (SFFD, 2004).

The Haz Mat team response time to an emergency at the proposed project site is approximately 30 minutes. They are capable of handling any emergency involving spills, e.g., aqueous ammonia.

8.8.3.6.4 Hospitals. The Potrero Hill Health Center, a clinic that is part of the Community Health Network of San Francisco (CHN), is located at 1050 Wisconsin in the Potrero Hill neighborhood, about 0.8 mile from the project site. San Francisco General Hospital, the closest full-service hospital, is located approximately 1.4 miles from the project site. Concentra Medical Center (formerly Mission Bay Occupational Care Center), a workers' compensation clinic that provides services to employers, is located approximately 0.6 mile from the proposed project site at 728 20th Street. In addition, there are several emergency and urgent care facilities within a short distance of the project site.

8.8.3.7 Utilities

8.8.3.7.1 Electricity and Gas. The project will connect to power grid through the PG&E Potrero Substation by two redundant three-phase 115-kV solid dielectric underground transmission circuits. The total transmission distance will be less than 3,000 feet (see Section 5.0, Electric Transmission).

Natural gas for the facility will be provided by PG&E. A pipe tie-in will be made to the existing PG&E San Francisco Line 101, located at the intersection of Illinois and 25th streets. The gas line will be approximately 900 feet long, 12 inches (or less) diameter, and will run

along the north side of the property along 25th Street. Gas supply is described in Section 6.0, Natural Gas Supply.

8.8.3.7.2 Water. Potable water for drinking, safety showers, fire protection water, service water, and sanitary uses will be provided via a city main located about 300 feet away on Cesar Chavez Street (see Figure 2-1). Water for process and cooling, equipment wash water, and the dual plumbing system (toilets) would be recycled water produced onsite. The City will provide untreated process water from a process water pumping station (WPS) to be constructed on Marin Street near Mississippi Street. A new pipeline will be installed along Marin, Mississippi, and east on Cesar Chavez Street to convey the process water to a new water treatment system located on the southern portion of the project site. The 0.76 mile pipeline will connect the WPS to the facility, where it will be treated onsite to Title 22 recycled water standards. Approximately 1,300 feet of the pipeline will be installed within an existing collection box. The remaining portion will be new trenched construction with the exception of possible jack and bore construction under 3rd Street and Illinois Street. The water supply system is described in Subsection 8.14, Water Resources.

8.8.3.7.3 Wastewater Discharge. Plant wastewater would be discharged to the combined sewer system as permitted under the discharge permit to be obtained from the City under Article 4.1 of the San Francisco Public Works Code.

Sanitary wastewater generated at SFERP, estimated at 1 gpm average and 2 gpm maximum, will also be discharged to the combined sewer system. This volume would be considered a *de minimus* increase in demand on the combined sewer system, not measurable within the overall dry weather flow (average 68 MGD) and well within the treatment, conveyance and disposal capacities of the City's system. See subsection 8.14.5, in Water Resources, for more information about plant discharges.

8.8.4 Environmental Consequences

This subsection assesses the potential environmental impacts of the project and linears.

8.8.4.1 Potential Environmental Impacts

Local environmental impacts were determined by comparing project demands during construction and operation with the socioeconomic resources of the project area (i.e., San Francisco). A proposed power-generating facility could impact employment, population, housing, public services and utilities, and/or schools. Impacts could be local and/or regional, although most socioeconomic impacts would tend to be more regional than local. As discussed in this subsection, generally, it is anticipated that the project will not have any significant adverse impacts on the socioeconomic environment, and it will have some socioeconomic benefits to the local community. However, as is stated in Ordinance No. 124-01, Southeast San Francisco has been recognized as a minority community entitled to environmental justice and all in-City electric power generation is currently located in Southeast San Francisco. The Environmental Justice Issues are described in Section 4.0, Environmental Justice.

8.8.4.2 Significance Criteria

Section 15131 of the CEQA Guidelines suggests the following criteria are to be used to determine the significance of project-related socioeconomic impacts.

- Economic or social effects of a project shall not be treated as significant effects on the environment.
- Economic or social factors of a project may be used to determine the significance of physical changes caused by the project.
- Economic, social, and particularly housing, factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment.

8.8.4.3 Construction Impacts

Construction is planned to take place over a 12-month period, which is expected to occur from second quarter 2006 to the second quarter 2007. Plant testing and commercial operation are planned to commence in the second quarter of 2007.

8.8.4.3.1 Construction Workforces. The primary trades in demand will include boilermakers, carpenters, electricians, ironworkers, laborers, millwrights, operators, and pipefitters. Table 8.8-10 shows the construction personnel requirements for the plant and linear facilities. Total personnel requirements during construction of the plant will be approximately 1,931 person-months, or 161 person-years. Construction personnel requirements for the plant, underground transmission line and water line will peak at approximately 264 workers during the 6th month of the construction period.

The availability of skilled labor in San Francisco was evaluated by surveying a number of labor unions (Table 8.8-11) and by contacting CEDD (Tables 8.8-12 and 8.8-13). Both sources show that the workforce in San Francisco as well as that in the San Francisco PMSA and the greater Bay Area will be adequate to fulfill SFERP's labor requirements for construction. In addition, as shown in Table 8.8-5, the construction workforce within the San Francisco PMSA has been growing at a small but positive average annual rate of 0.4 percent per year. Therefore, SFERP construction will not place an undue burden on the local workforce.

8.8.4.3.2 Population Impacts. It is anticipated that most of the construction workforce will be drawn first from the San Francisco PMSA and then from the nine-county Bay Area. Most workers are expected to commute to the project site, and therefore, will not contribute to an increase in the population of the area.

8.8.4.3.3 Housing Impacts. The construction workforce will most likely commute to the project site daily; however, if needed, there are about 244 hotels/motels with over 34,800 rooms in San Francisco to accommodate workers who may choose to commute to the project site on a workweek basis. In 2004, the average hotel/motel vacancy rate in San Francisco was about 30 percent, while the average room rate was $131 per night (Strong, 2005). In addition to the available hotel/motel accommodations, there are over 50 recreational vehicle (RV) parks within 20 miles of the proposed project site. As a result, construction of the proposed project is not expected to impact housing supply. Potential impacts of the SFERP on housing development in Southeast San Francisco are addressed in Subsection 8.4, Land Use.

TABLE 8.8-10
Construction Personnel by Month

	Months After Notice to Proceed												
Discipline	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Total**
Power Plant													
Boilermakers			10	30	38	38	38	38	30	6	3		231
Bricklayers/Masons			2	3	3	3	3	3	2	2			21
Carpenters		4	7	7	7	7	7	7	7	4	3		60
Electricians		16	25	35	35	38	38	38	38	30	10	1	304
Insulation Workers			2	9	12	12	12	12	12	12	5		88
Ironworkers		8	12	16	16	16	16	16	12	8	4		124
Laborers	8	12	12	12	14	14	16	16	16	12	6	2	140
Millwrights		8	10	12	22	24	24	24	24	14	4		166
Operating Engineers	6	7	8	9	8	8	8	8	8	6	2		78
Painters					2	2	3	3	6	6	2	1	25
Pipefitters		8	24	35	40	40	40	40	32	28	5		292
Sheetmetal Workers				3	3	3	4	4	4	1			22
Surveyors	2	2	2	2	2								10
Teamsters	4	4	4	4	4	4	4	4	4	2	1		39
Total Manual Staff	20	69	118	177	206	209	213	213	195	131	45	4	1,600
Total Contractor Staff*	3	12	20	30	35	36	36	36	33	22	8	1	272
Subtotal Plant Labor Force	**23**	**81**	**138**	**207**	**241**	**245**	**249**	**249**	**228**	**153**	**53**	**5**	**1,872**
Underground Transmission Line													
Equipment operators				2	2	2							**6**
Electricians				0	0	3							**3**
Carpenters				2	2	2							**6**
Laborers				3	3	3							**9**

TABLE 8.8-10
Construction Personnel by Month

Discipline	Months After Notice to Proceed												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
Foreman				1	1	1							**3**
T-line Labor Force Subtotal				**8**	**8**	**11**							**27**
Process Water Line													
Equipment Operators					3	3	3	3					12
Pipefitters					2	2	2	2					8
Laborers					2	2	2	2					8
Foremen					1	1	1	1					4
Water Line Labor Force					8	8	8	8					32
TOTAL LABOR FORCE	**23**	**81**	**138**	**215**	**257**	**26**	**257**	**257**	**228**	**153**	**53**	**5**	**1,931**

*These are supervisors and laborers that work for the general contractor
Other linears (i.e., gas line and potable water line) are part of plant construction workforce.

TABLE 8.8-11
Labor Union Contacts

Labor Union	Contact	Phone Number
San Francisco Building and Construction Trades Council (BTC)	Stan Warren, Secretary/Treasurer	(415) 467-3330
International Brotherhood of Electrical Workers (IBEW) Local 6	Matt Bamberger, Business Representative	(415) 861-5752
United Association (UA) – Plumbers & Fitters Local 38	Larry Lee, Business Agent	(415) 626-2000

TABLE 8.8-12
Available Labor by Skill in San Francisco County, 2001 to 2008

Occupational Title	Annual Averages		Absolute Change	Percentage Change	Average Annual Compounded Growth Rate (%)
	2001	2008			
Carpenters	3,450	3,900	450	13.0	1.8
Cement Masons & Concrete Finishers	350	380	30	8.6	1.2
Painters, Construction & Maintenance	1,380	1,560	180	13.0	1.8
Sheet Metal Workers	400	500	100	25.0	3.2
Electricians	2,130	2,490	360	16.9	2.3
Welders, Cutters, Solderers, & Brazers	570	630	60	10.5	1.4
Industrial Truck & Tractor Operators	710	740	30	4.2	0.6
Operating Engineers	480	520	40	8.3	1.2
Helpers, Laborers	2,990	3,450	460	15.4	2.1
Plumbers, Pipefitters, & Steamfitters	770	840	70	9.1	1.3
Administrative Services Managers	7,870	7,710	-160	-2.0	-0.3
Mechanical Engineers	290	310	20	6.9	1.0
Electrical Engineers	390	400	10	2.6	0.4
Engineering Technicians	930	950	20	2.2	0.3
Plant & System Operators	650	690	40	6.2	0.9

Source: CEDD, 2005c.

TABLE 8.8-13
Available Labor by Skill in the San Francisco PMSA, 2001 to 2008

Occupational Title	Annual Averages		Absolute Change	Percentage Change	Average Annual Compounded Growth Rate (%)
	2001	2008			
Carpenters	8,570	9,020	450	5.3	0.7
Cement Masons & Concrete Finishers	1,170	1,130	-40	-3.4	-0.5
Painters, Construction & Maintenance	2,900	3,120	220	7.6	1.1
Sheet Metal Workers	1,230	1,390	160	13.0	1.8
Electricians	3,890	4,360	470	12.1	1.6
Welders, Cutters, Solderers, & Brazers	1,270	1,420	150	11.8	1.6
Industrial Truck & Tractor Operators	1,690	1,720	30	1.8	0.3
Operating Engineers	1,050	1,080	30	2.9	0.4
Helpers, Laborers	7,770	8,190	420	5.4	0.8
Plumbers, Pipefitters, & Steamfitters	2,040	2,090	50	2.5	0.3
Administrative Services Managers	13,100	13,050	-50	-0.4	-0.1
Mechanical Engineers	810	900	90	11.1	1.5
Electrical Engineers	1,220	1,300	80	6.6	0.9
Engineering Technicians	2,530	2,730	200	7.9	1.1
Plant and System Operators	1,000	1,080	80	8.0	1.1

Source: CEDD, 2005b.

8.8.4.3.4 Impacts to the Local Economy and Employment. The estimated value of materials and supplies that will be purchased locally during construction is $2 to $3 million. The City will provide about $13.41 million[1] in construction payroll over the 12-month construction period. The anticipated payroll for employees, as well as the purchase of materials and supplies during the construction period, will have a slight beneficial impact on the area. Assuming, conservatively, that 60 percent of the construction workforce will reside in San Francisco, it is expected that approximately $8.05 million[2] will stay in the local area during the 12-month construction period. These additional funds will cause a temporary beneficial impact by creating the potential for other employment opportunities for local workers in other service areas, such as transportation and retail.

Indirect and Induced Economic Impacts from Construction. Construction activity would result in secondary economic impacts (indirect and induced impacts) within San Francisco. Indirect and induced employment effects include the purchase of goods and services by firms involved with construction and construction workers spending their income within

[1] The initial $12.5 million in construction payroll was adjusted to reflect a 4 percent increase in payroll (thus the new construction payroll is estimated at $13.41million). The resulting payroll was further adjusted to include the addition of the HV Underground Transmission Line Labor Force (27) and water line labor force (32).

[2] The $8.05 million represents the annual portion of the local payroll for construction (i.e., $13.41 million in construction payroll multiplied by 60 percent [or the portion assumed to be local]).

San Francisco. In addition to these secondary employment impacts, there are indirect and induced income effects arising from construction. Indirect and induced impacts were estimated using an IMPLAN Input-Output model of San Francisco. IMPLAN is an economic modeling software program. The estimated indirect and induced employment within San Francisco would be 13 and 45 jobs, respectively. These additional jobs result from the $3 million in annual local construction expenditures as well as the $5.63 million in spending by local construction workers. The $5.63 million represents the disposable portion of the annual construction payroll (assumed to be 70 percent of the $8.05 million in annual construction payroll spent locally). Assuming an average monthly direct construction employment of 161 person years (1,931 person-months for construction/12 months), the employment multiplier associated with the construction phase of the project is approximately 1.4 (i.e., [161 construction jobs + 13 indirect jobs + 45 induced jobs]/161). This project construction phase employment multiplier is based on a Type Social Accounting Matrix (SAM) model.

Assuming that annual local construction expenditures are $2 million instead of $3 million results in indirect and induced employment estimates within San Francisco of 8 and 45 jobs, respectively. Based on the same average construction employment of 161, the construction phase employment multiplier would be approximately 1.3.

Indirect and induced income impacts were estimated at $520,700 and $1,987,700, respectively. Assuming a total annual local construction expenditure (payroll, materials, and supplies) of $11.05 million ($8.05 million in payroll + $3 million in materials and supplies), the project construction phase income multiplier based on a Type SAM model is approximately 1.2 (i.e., [$11,045,800 construction expenditures + $520,700 indirect income + $1,987,700 induced income]/$11,045,800]).

Indirect and induced income impacts based on the total annual construction expenditure of $10.05 million ($8.05 million in payroll + $2 million in materials and supplies) were estimated at $347,100 and $1,958,800, respectively. Based on these estimates, the construction phase income multiplier was estimated at 1.2.

8.8.4.3.5 Fiscal Impacts. SFERP initial capital cost is estimated to be $140 million. The estimated value of materials and supplies that will be purchased locally (within San Francisco) during construction is between $2 and $3 million. The effect on fiscal resources during construction will be from sales taxes realized on equipment and materials purchased in San Francisco and from sales taxes from expenditures. The sales tax rate in San Francisco is 8.5 percent (BOE 2005). Of this, 6 percent goes to the state; 0.25 percent goes to the County; 1 percent goes to the place of sale; and 1.25 percent goes to the special districts (BOE, 2005). The total local sales tax generated during construction is expected to be $170,000 to $255,000 (i.e., 8.5 percent of local sales). Of this amount, 1.25 percent of the sales taxes (about $25,000 to $37,500) would go to San Francisco, since it would receive the sales taxes for both the County and the point of sale.

8.8.4.3.6 Impacts on Education. Student enrollment in the San Francisco School District has been declining by an average of about 200 students a year since the 2001-02 school year (ED-Data, 2005; Fillingim-Selk, 2005). Enrollment figures for the current academic year (2004-05) indicate that this trend is reversing, though enrollment is not as high as it was in the 2000-01 school year.

Since there is a large local labor force, construction of SFERP will not cause significant population changes or housing impacts to the region. Most employees will commute to the site from within San Francisco (as well as from the nine-county Bay Area), as opposed to relocating to the area. As a result, SFERP construction will not cause any significant increase in demand for school services.

8.8.4.3.7 Impacts on Public Services and Facilities. The construction phases of the project may have minor impacts on police, fire, or hazardous materials handling resources. The San Francisco Fire Department does not anticipate any significant impacts during the construction phase of the project (Juarez, 2004). Copies of the records of conversation with the Police and Fire Departments are included in Appendix 8.8B. SFERP construction is not expected to create significant adverse impacts on medical resources in the area since there are a number of medical facilities in close proximity to the proposed project site. For more serious/major injuries, there are several emergency and urgent care facilities within a short distance of the project site.

8.8.4.3.8 Impacts on Utilities. SFERP construction will not make significant adverse demands on local water, sanitary sewer, electricity, or natural gas. While the project will require extension of existing utility lines, there is sufficient utility capacity for the project. Water requirements for construction are relatively insignificant. Given the modest number of workers and temporary duration of the construction period, the impacts on the local sanitary sewer system would not be significant.

8.8.4.4 Operational Impacts

8.8.4.4.1 Operational Workforce. The proposed SFERP facility is expected to begin commercial operation in the second quarter of 2007. It is expected to employ up to 11 full-time staff. Anticipated job classifications are shown in Table 8.8-14. The entire permanent workforce is expected to commute from within San Francisco or from the nine-county Bay Area.

Facility employees will be drawn from the local workforce and from existing staff. Consequently, only a slight increase in population is anticipated as a result of this project. There will be no significant impacts on local employment.

TABLE 8.8-14
Typical Plant Operation Workforce

Department	Personnel	Shift	Workdays
Operations	5 Operating Technicians 1 Instrument and Controls Technician	Rotating 12-hour shift, 2 operators per shift, 2 relief operators	7 days a week
Maintenance	2 Maintenance Technicians	Standard 8-hour days	5 days a week (Maintenance technicians will also work unscheduled days and hours as required [weekends])
Administration	3 Administrators (1 Plant Manager, 1 Assistant Plant Manager, 1 Administrative Assistant)	Standard 8-hour days	5 days a week, with additional coverage as required

8.8.4.4.2 Population Impacts. It is expected that the operational workforce will be drawn either from the local population or from the nine-county Bay Area. Even if this were not the case, due to the modest number of operations staff, significant impacts on population are not anticipated.

8.8.4.4.3 Housing Impacts. Due to the few operations staff, significant impacts to housing are not anticipated. Based on the housing vacancy data in Table 8.8-4, there are approximately 17,016 available housing units within San Francisco. Thus, if there are employees who need to relocate, they could choose to live in San Francisco. Nonetheless, any new demand for housing created by the operational workforce would not be significant.

8.8.4.4.4 Impacts on the Local Economy and Employment. SFERP operation will generate a small, permanent beneficial impact by creating employment opportunities for local workers through local expenditures for materials, such as office supplies and services. The average salary (including benefits) per operations employee is expected to be between $76,000 per year and $95,000[3] per year (this is based on the estimated operational payroll of $0.83 to $1.04 million per year and 11 full-time employees). Approximately $200,000 to $300,000 will be spent locally (i.e., within San Francisco) on materials and services each year. These additional jobs and spending will generate other employment opportunities and spending in the San Francisco area. The addition of 11 full-time jobs would not significantly reduce unemployment rates.

Indirect and Induced Economic Impacts from Operation. The operation of the proposed project would result in indirect and induced economic impacts that would occur within San Francisco, depending on the point of sale. These indirect and induced impacts represent permanent increases in San Francisco's economic variables. The indirect and induced impacts would result from annual expenditures on payroll as well as those on operations and maintenance (O&M).

Estimated indirect and induced employment within San Francisco would be 1 and 3 permanent jobs, respectively. These additional 4 jobs result from the $1.17 million ($0.936[4] million in payroll and $0.25[5] million in local purchase of materials and services) in annual operational budget expected to be spent locally within San Francisco. The operational phase employment multiplier is estimated at 1.4 (i.e., [11 + 1 + 3]/11) and is based on a Type SAM multiplier.

Indirect and induced income impacts are estimated at $68,218 and $1,110,100, respectively. The income multiplier associated with the operational phase of the project is approximately 2.0 (i.e., [$1,186,000 + $68,218 + $1,110,100]/$1,186,000) and is based on a Type SAM model.

8.8.4.4.5 Fiscal Impacts. During operation, approximately $200,000 to $300,000 will be spent locally (i.e., within San Francisco) on materials and services each year. As stated earlier, SFERP will bring between $0.83 million and $1.04 million in operational payroll to the region.

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[3] Operational payroll was adjusted by increasing it by 4 percent.

[4] The $0.936 million is the midpoint of the estimated annual operations payroll of $0.832 million and $1.04 million.

[5] The $0.25 million is the midpoint of the estimated annual expenditures on materials/services purchased locally during operation.

Since the City is a public agency, it does not pay property taxes. Thus, CCSF would not derive any additional funds from property taxes. However, it would receive sales tax revenue from project expenditures.

During operations, additional sales tax revenues will be obtained by CCSF. Increased payroll will be $0.83 million to 1.04 million annually. Assuming local expenditures of $200,000 to $300,000 annually, the estimated sales taxes will be approximately $17,000 to $25,500. Of this amount, CCSF will receive $2,500 to $3,750 in sales tax revenues (1.25 percent of $200,000 to $300,000). The anticipated increase in sales tax revenues would be beneficial but not significant, since it would constitute such a small percent of total CCSF revenues.

8.8.4.4.6 Impacts on Education. Assuming that most of the 11 operational employees end up residing within San Francisco, SFERP operation is not expected to create any significant adverse impacts to the local school system (Fillingim-Selk, 2005). Assuming an average family size of 3.03 persons/household for San Francisco (U.S. 2000 Census) would imply the addition of between 11 and 22 children to the local schools. This would constitute less than one tenth of one percent increase in school enrollment. Due to its public agency status, the applicant is exempt from paying school impact fees to San Francisco Unified School District (Fillingim-Selk, 2005).

8.8.4.4.7 Impacts on Public Services and Facilities. Project operation will not make significant demands on public services or facilities even if all of the 11 operational employees decide to reside in San Francisco. The SFPD did not express any concerns about increased service demands during plant operations (Puccinelli, 2004). Copies of the records of conversation with the Police and Fire Departments are included in Appendix 8.8B. SFERP's operation would not create significant adverse impacts on medical resources in the area due to the safety record of power plants and few operations staff.

8.8.4.4.8 Impacts on Utilities. Potable water for drinking, safety showers, fire protection water, service water, and sanitary uses will be provided by the City. Water for process and cooling water, equipment wash water and the dual plumbing system (toilets) would be recycled water to be produced on the site at a new recycled water treatment system included as part of the project design. The plant's operation will not otherwise make significant adverse demands on local water, sanitary sewer, electricity, or natural gas because adequate supply and capacity currently exist.

8.8.5 Cumulative Impacts

Present and foreseeable projects in the project vicinity that have either been approved or are pending approval by the City include the MUNI Metro East Operation and Maintenance facility adjacent to and west of the project site (with construction expected to occur from Summer 2005 to Spring 2008); 494 additional housing units; and several hundred thousand square feet of commercial development. The Port of San Francisco is planning a large mixed-use development at Pier 70. In addition, the Port has several other projects planned or under construction: (1) a multi-modal bridge over Islais Creek that will link Illinois Street to Cargo Way and will provide access for rail, truck traffic, and bicyclists, with construction to start in March 2005, lasting 18 months; (2) two concrete/cement batch plants south of Islais Creek on Piers 92 and 94, with both plants expected to be operational by summer 2005; and (3) Pier 90-94 Backlands 44-acre site is in the initial planning phase for a distribution

and warehouse complex. No other commercial electrical generation projects are planned or proposed within the project vicinity (with the exception of Potrero Unit 7 that is in suspension). In addition, the City is currently constructing a light rail extension down Third Street, which would be complete before SFERP would be licensed. Each of these projects would require construction labor.

Specific construction periods are only available for the MUNI and some of the Port projects. These projects will be constructed concurrently with the SFERP. However, since the Bay Area workforce is so large, a shortage of labor resources is not anticipated. Also, due to the size of the local workforce, relocation of workers with their families is not anticipated. Since both construction and operations personnel for these projects will be drawn primarily from San Francisco or the surrounding nine-county Bay Area, no adverse impacts to local schools or housing is anticipated. No adverse cumulative socioeconomic impacts are anticipated from the construction of SFERP and these other facilities. Instead, San Francisco will receive a beneficial (but not significant) impact from short-term construction spending and longer-term operations.

Subsection 8.4, Land Use, describes planned residential units in the project vicinity. No specific time tables for development of these projects are available. Therefore, cumulative construction impacts to schools, housing and public services cannot be analyzed with respect to the project. However, as stated above, since the local construction workforce is so large, it is unlikely that development of these projects, even if they occurred simultaneously with the SFERP project, would create a significant cumulative impact.

8.8.6 Environmental Justice

Environmental justice is addressed in Section 4.0, Environmental Justice.

8.8.7 Mitigation Measures

Since there are no significant adverse impacts caused by the project, no socioeconomic-specific mitigation measures are proposed.

8.8.8 Involved Agencies and Agency Contacts

Table 8.8-15 provides a list of agencies and contact persons of potentially responsible agencies. Copies of records of conversation are provided in Appendix 8.8B.

TABLE 8.8-15
Agencies and Agency Contacts for SFERP Socioeconomics

Agency	Contact/Title	Phone Number	Address
San Francisco Unified School District	Jeff Fillingim-Selk, Head of Operations	(415) 241-6000	555 Franklin St., Rm 102 San Francisco, CA 94102
San Francisco Fire Department	Lt. Barry Wong, Station #37 Fire Fighter Leo Tingin, Station #25 Lt. Chris Reyes, Station #9	(415) 558-3237 (415) 558-3225 (415) 558-3209	698 Second Street San Francisco, CA 94107
San Francisco Police Department	Captain Rick Bruce	(415) 671-2300	201 Williams Street San Francisco, CA

8.8.9 Permits and Permitting Schedule

Permits dealing with the effects on public services are addressed as part of the building permit process. For example, school development fees are typically collected when the applicant pays in-lieu building permit fees. However, since the applicant is a public agency, it does not pay school impact fees. No permits are required to comply with the socioeconomic impacts of the project.

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